ABSTRACT

~~The present invention relate to a two-stage gasification process using a gas generator for the recovery of strongly~~ Strongly alkaline chemicals and energy ~~value~~ are recovered from a cellulose spent liquor in a two-stage gasification process using a gas generator. The temperature in ~~the~~ a first reaction zone of the gas generator is maintained between 1000 C. and 1400 C. by the controlled addition of an oxygen containing gas. A strongly alkaline smelt ~~comprising alkali oxide, alkali hydroxide, alkali carbonate and alkali borate's corresponding to at least 75% by weight of the smelt~~ is recovered from below the first reaction zone of the gas generator. A gaseous component ~~components~~ stream formed ~~by exothermal reactions~~ in the first reaction zone is ~~are~~ directed to a second reaction or gas transfer zone of substantially of updraft or up-flow design, wherein the gaseous stream is cooled to a temperature below about 1000 C, ~~said~~ the cooling preferably achieved by endothermal decomposition of cellulose spent liquor injected into the gaseous stream.